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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Carl W. Podella

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EXAMINER

VOGEL, NANCY S

ART UNIT

PAPER NUMBER

1636

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/799,529	PODELLA ET AL.	
	Examiner	Art Unit	
	Nancy T. Vogel	1636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 29-52 and 56-58 is/are pending in the application.
- 4a) Of the above claim(s) 48-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 29-47, 52 and 56-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/8/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-21, 29-52 and 56-58 are pending in the case.

Receipt of the Information Disclosure Statement on 6/8/06 is acknowledged.

Election/Restrictions

Claims 48-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/8/07.

Applicant's election without traverse of Group I in the reply filed on 2/8/07 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Brucato et al. (US Patent 6,100,072).

Brucato et al. disclose a method for making a mixture of peptides and surface-active agents, comprising fermenting a plurality of yeast cells in presence of a nutrient source to obtain a fermentation product containing peptides, disrupting the cellular structure of some of the plurality of yeast cells which are *Pichia* cells, and combining the

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fermentation product obtained from said plurality of yeast cells with a surface-active agent, which is a non-ionic surfactant (see col. 11 , lines 18-50).

Claims 1-3, 6, 7, 10, 12, 13, 15, 16, are rejected under 35 U.S.C. 102(b) as being anticipated by Van Wijnendaele et al. (US Patent 4,683,294)

Van Wijnendaele et al. disclose a method for making a mixture of peptides and surface-active agents comprising fermenting a plurality of yeast cells in presence of a nutrient source to obtain a fermentation product containing peptides, disrupting the cellular structure of some of the plurality of yeast cells which are *Saccharomyces cerevisiae* cells, and combining the fermentation product obtained from said plurality of yeast cells with a surface-active agent, which is a non-ionic surfactant or detergent (see col. 3 line 53 – col. 6 line 51). The reference discloses that disruption may be performed by physically disrupting the cellular structure of some of the plurality of yeast cells (col. 5 last paragraph). The reference discloses that disruption occurs by chemical treatment and mechanical forces (treatment with EDTA, polysorbate 20 and isopropanol containing PMSF, and passage through a glass beads homogenizer).

Claims 1-3, 6-8, 10, 12-17, 29-34, 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Battistoni et al. (US Patent 3,635,97) (cited by applicants).

Battistoni et al. disclose a method of making a mixture of peptides and surface-active agents comprising fermenting a plurality of *S. cerevisiae* cells in the presence of a nutrient source, disrupting some of the cells, and combining the fermentation product with a surface-active agent, such as anionic detergents and nonionic surfactants (col. 1-2, col. 4 lines 7-20). It is considered that the fermentation mixture disclosed by

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Battistoni et al. would have some disrupted cells that have been disrupted by physical (during handling) means or by the chemicals, which are added to the fermentation mix. The reference discloses a method of treating biological systems that removing accumulated waste or digesting and removing organic materials using said mixture (col. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 5-10, 12, 13, 15, 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Wijnendaele et al. (US Patent 4,683,294) in view of "Baker's Yeast Production" Chapter 6, (cited by applicants).

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Van Wijnenedaele et al. is cited for the reasons set forth above. The difference between the reference and the instant claims is that a sugar and ammonia are present as a nutrient source and fermentation is performed under aerobic conditions.

However, Chapter 6 of "Baker's Yeast Production" teaches fermentation of *S. cerevisiae* under aerobic conditions, in which a sugar and ammonia are present (see page 271-275). It would have been obvious to one of ordinary skill in the art to have conducted aerobic fermentation of any *S. cerevisiae* culture, including that taught by Van Wignenedaele et al., including a sugar as a carbon source and ammonia as a nitrogen source, as taught by the textbook "Baker's Yeast Production" Chapter 6, since such standard methods for growth of yeast were well known in the art and since one would have expected such conditions to result in cell growth and production of a desired yeast product. Based upon the teachings of the cited references, the high skill of one of ordinary skill in the art, and absent evidence to the contrary, there would have been a reasonable expectation of success to result in the claimed invention.

Claims 1-3, 6, 7, 10-13, 15, 16 are rejected under 35 USC 103(a) as being unpatentable over Van Wijnendaele et al. (US Patent 4,683,294) in view of Pointek et al. (US Patent 6,428,984).

Van Wijnendaele et al. is cited for the reasons set forth above.

The difference between the reference and the instant claims is that methods such as a high-pressure homogenizer, French press, or ball mill are used to physically disrupt the yeast cells.

However, Pointek et al. teach that such methods as high-pressure homogenizer are known in the art to be useful for disrupting cells such as yeast (col. 1-3). It would have been obvious to one of ordinary skill in the art to have used well known methods such as a high-pressure homogenizer to disrupt yeast cells taught by Van Wignendaele, since Pointek et al. teach that such methods are useful for disruption, and since both references are concerned with disrupting yeast cells in order to obtain products contained in the interior of the cell. Based upon the teachings of the cited references, the high skill of one of ordinary skill in the art, and absent evidence to the contrary, there would have been a reasonable expectation of success to result in the claimed invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21, 29-47, 52, 56-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 29-39 are vague and indefinite in the recitation of the term "biological system" since this term is not defined and it cannot be determined what is intended to be encompassed by the term. For instance, does applicant intend that living organisms such as mammals, etc. are intended to be encompassed by "biological system"?

Claim 1 and by dependence claims 2-21, 29-47, 52-58 are vague and indefinite in the recitation of "fermentation product" since it is not clear what is intended. In line 4 it is recited that the fermentation product is a "fermentation product containing peptides", which could encompass the yeast cells. However, in claim 2 it is recited that disrupting the cellular structure of the yeast cells "releases intracellular peptides from the yeast cells into the fermentation product". And in claim 3, it is recited that "the plurality of yeast cells" are separated from the "fermentation product". Therefore, it is unclear whether the fermentation product is the unlysed yeast cells, the internal contents of yeast cells, the peptides released by yeast cells upon disruption, or something else.

Conclusion

No claims are allowed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy T. Vogel whose telephone number is (571) 272-0780. The examiner can normally be reached on 7:00 - 3:30, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NV
4/11/07


NANCY VOGEL
PRIMARY EXAMINER